

Notice of Allowability

Application No.

09/637,400

Examiner

Hussein A. El-chanti

Applicant(s)

RAMANATHAN ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3/5/2007.
2. ☒ The allowed claim(s) is/are 1-4, 7-14 and 17-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


ARIO ETIENNE
SUPERVISORY PATENT EXAMINER
BIOLOGY CENTER 2100

EXAMINER'S AMENDMENT

1. This action is responsive to amendment received on March 5, 2007.
2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
3. Authorization for this examiner's amendment was given in a telephone interview with Mr. James Morris on March 26, 2007.
4. The application has been amended as follows:
 1. **(Currently amended)** A method of increasing throughput of a server capable of servicing at least one TCP/IP connection with a client, the server creating a TCP/IP Transmission Control Block (TCB) stored in non-paged pool (NPP) memory containing information required to identify and to service the client connection, comprising:
 - closing a TCP/IP connection between said client and said server;
 - excluding information from the TCB not required to identify the client connection to form a timed-wait state TCB (TWTCB) for a time-wait period; and
 - releasing the NPP memory containing the information required to service the client connection;
 - wherein excluding information includes excluding connection state information, send and receive queue information, a routing disconnect indication, and a routing information for the connection.

11. (Currently amended) A method for increasing the throughput of a server capable of servicing at least one TCP/IP connection, the server establishing a TCP/IP Transmission Control Block (TCB) of a size and containing information sufficient to identify and service the connection with a client, comprising:

closing the at least one TCP/IP connection between said client and said server;
forming a Timed-Wait TCB (TWTCB) of a size less than the TCB; and
excluding information from the TCB not required to identify the client connection to form a timed-wait state TCB (TWTCB) for a time-wait period;

releasing the TCB for use by the server;

wherein ~~forming the TWTCB includes~~ excluding information includes ~~excluding a~~ connection state information, send and receive queue information, a routing disconnect indication, and a routing information for the connection.

18. (Currently amended) A computer readable medium ~~having~~ storing computer-executable instructions for servicing at least one TCP/IP connection with a client and a server, the server creating a TCP/IP Transmission Control Block (TCB) stored in non-paged pool (NPP) memory containing information required to identify and to service the client connection, said computer executable instructions when executed performing steps comprising:

closing a TCP/IP connection;

excluding information from the TCB not required to identify the client connection to form a timed-wait state TCB (TWTCB) for a time-wait period; and

releasing the NPP memory containing the information required to service the client connection;

wherein excluding information includes excluding connection state information, send and receive queue information, a routing disconnect indication, and a routing information for the connection.

~~copying less than all information stored in a TCP/IP Transmission Control Block (TCB) into a Timed-Wait TCB (TWTCB); and~~

~~maintaining the TWTCB for a timed wait period to avoid late routed packets from establishing a new connection with a server;~~

wherein copying less than all information includes excluding a connection state information, send and receive queue information, a routing disconnect indication, and a routing information for the connection.

5. Claims 1-4, 7-14 and 17-21 are allowed.

6. The following is an examiner's statement of reasons for allowance:

The prior art of record does not teach neither singly or in combination the limitation "excluding information from the TCB not required to identify the client connection to form a timed-wait state TCB (TWTCB) for a time-wait period; and wherein excluding information includes excluding connection state information, send and receive queue information, a routing disconnect indication, and a routing information for the connection" as in claims 1-4, 7-14 and 17-21.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hussein A. El-chanti whose telephone number is (571)272-3999. The examiner can normally be reached on Mon-Fri 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571)272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hussein El-chanti

March 26, 2007


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